CLAIMS

1. A method of identification and control of handling of keys and the like, for each key or the like an identification and control device (3) being selected, which is registered, when the key is removed and returned respectively, characterized in that the identification code of the user is fed into a control center (4), in that the fed code is forwarded to a printed circuit card (18) in a local control and indication unit (2), in that the removability and the removal are registered in said control unit (4) and indicated on said control and indication unit (2), in that an identification and control device (3) is used having a pin-like, hollow shell (26), in which a printed circuit card (42) and a chip (43) are mounted, the latter being loaded with a unique code for each identification and control device (3), and which is inserted into a hole (23) in said local control unit (2), and in that from the printed circuit card (42) and the chip (43) of said device and via contact means (19) information is sent to the printed circuit card (18) of the local control and indication unit (2).

2. A method according to claim 1, characterized in that the control and indication unit (2) is mounted in a key cabinet or the like, locked by a code lock, into which a personal code is fed by the user in order to be able to open the cabinet, in addition to a release of the door to the key cabinet or the like a signal to the printed circuit card (18) of the unit (2) being forwarded, for each insertion position (23) for an identification and control device (3) authorization and/or non-authorization being indicated, particularly by a diode lamp (25) showing a green light for authorization and a red light for non-authorization, in that, when one or several keys are removed with authorization, a signal is sent via the printed circuit card (18) of the unit (2) to said control center (4) having a central printed circuit card, in which the removal is registered and stored, and in that, when a removal without authorization is done, an alarm signal in a similar way is sent to said center and forwarded to e.g. an alarm device.

3. A method according to claim 1 or 2, characterized in that, up to the return of the key/the keys or the like, it/they and/or the attached identification and

control device (3), when e.g. a door is unlocked, will send a signal, which is registered in said center and/or another center.

4. A method according to any of claims 1-3, characterized in that, when the key/the keys or the like is (are) returned, associated diodes will emit light, when the user has given his code, in order to indicate, where the key/the keys is (are) to be inserted, which also will be registered in said center.

5. A method according to any of claims 1-4, characterized in that, via any of said centers, possibly via a connected PC, in each phase it is possible to control, who has removed which keys, and possibly also to determine the point of time for a removal, an unlocking, a locking, a return etc., preferably also security functions being integrated, e.g. a return of keys before a certain specified point of time.

6. An apparatus (1) for carrying out the method for identification and control of handling of keys or the like according to claim 1, for each key an identification and control device (3) being selected, which will be registered, when a removal and a return respectively takes place, characterized in that the identification code of the user will be fed into a control center (4), in that the fed code will be forwarded to a printed circuit card (18) in a local control and indication unit (2), in that the removability and the removal will be registered in said control center (4) and indicated on said control and indication unit (2), in that said identification and control device (3) is provided with a pin-like, hollow shell (26), in which a printed circuit card (42) and a chip (43) are mounted, the latter being loaded with a unique code for each identification and control device (3), and which shell will be inserted into a hole (23) in said local control and indication unit (2), and in that said device (3) will be brought to a contact position against and to a cooperation with contact means (19), connected to the printed circuit card (18) of the local control and indication unit (2).

7. An apparatus according to claim 6, characterized in that said control and indication unit (2) preferably is designed as a strip for a plurality of identification and control devices (3), which have a fastener (29) at their end for one or several keys, in that said unit (2) comprises a frame work (5), U-shaped in cross-section and preferably made of metal sheet, in which the longitudinal edges of the

legs (11,13) end in narrow flanges (6), extending in opposite directions in relation to each other and having a few additional projecting eyes (7), designed to receive screws or the like for the fastening of the unit to a wall, in that in the U-profile a fastening profile (8) is inserted having the same length, in that the substantially L-shaped fastening profile has a base leg (9), which lies in the same plane as the flanges (6), to the free longitudinal edge of this leg a bearing leg (10), which is shorter in profile, being connected, designed to abut the inner side of one of the legs (11) of the frame work, in that the second leg (12) of the fastening profile (8) runs plane parallel to the second leg (13) of the frame work at a distance inside it, and in that bolts (15) extend through the front (14) of the frame work (5) and the base leg (9) and are provided with spacing sleeves (16), which fasten these two parts to each other to a manageable unit.

8. An apparatus according to claim 7, characterized in that the leg (12) of the fastening profile (8) via fastening means (17) supports a printed circuit card (18), on its side, which faces the leg (11) of the frame work, contact means (19) extending from the printed circuit card towards said leg of the frame work and comprising a ribbon, plane parallely disposed in relation to the front (14) of the frame work, said ribbon comprising electric cables, separated from each other, one for each identification and control device (3), and in that the base leg (9) of the fastening profile supports with its side, which faces the front of the frame work, via fastening means (20) a fastener (21) for permanent magnets (22), which project towards the front of the frame work, one for each identification and control device.

9. An apparatus according to claim 8, characterized in that the front of the frame work has a plurality of holes (23), which correspond to said number of identification and control devices (3), suitably having inwardly bent collars (24), designed to have a guiding effect, in that the front of the frame work is provided with diode lamps (25), connected to said printed circuit card (18) and associated with said holes and designed to indicate e.g. authorization and non-authorization, when an identification and control device (3) has been fully inserted, and in that

non-authorization or non-availability will be indicated by a red light, whereas authorization or availability will be indicated by a green light.

10. An apparatus according to any of claims 6-9, characterized in that the pin-like shell (26) of said identification and control devices (3) is made of a light metal, the outer end (27) of the shell (26) preferably being pointed like a wedge and provided with a through hole (28) across it, designed to receive a key ring (29), to which one or several keys can be fastened, in that the shell (26) comprises two parts, a front inner part (30) and a rear outer part (31), in that the end sides (32, 33) of the two parts, designed in this way, which end sides face each other, each are provided with a cylindrical recess (34 and 35 respectively), designed to receive a carrier (63) made of an electrically isolating material, e.g. a plastic material, in that the carrier has a substantially cylindrical shape and fits with press fit with the respective ends into a respective recess, cavities (37 and 38 respectively) being left behind, designed to receive e.g. screw-shaped electrically conductive compression springs (39, 40), in that around the center of the shell a flange (41) extends, which separates the ends of said parts (30, 31) from each other and consequently is an electrically isolating flange, in that a compression spring abuts each end of said printed circuit card (42) with one of its ends, the other end of the compression springs abutting the respective bottom of said recesses (34, 35), and in that the end of each device (3), which is the front end in the insertion direction, receives in a recess (44) a steel washer (45), designed to cooperate with one of said permanent magnets via said ribbon (19) and en electric cable in it.

LIST OF TERMS IN THE DESCRIPTION

1. apparatus according to the invention
2. control and indication unit
3. identification and control device
4. control center
5. strip frame work
6. flanges
7. eye fastening means
8. fastening profile
9. base leg
10. bearing leg
11. first leg of the frame work
12. second leg of the fastening profile
13. second leg of the frame work
14. front of frame work
15. bolts
16. spacing sleeves
17. fastening means
18. printed circuit card in the strip
19. contact means
20. fastening means
21. fastener
22. permanent magnets
23. hole
24. collars
25. diode lamps
26. shell device
27. first end of device
28. hole
29. key-ring
30. front part of shell
31. rear part of shell
32. end side
33. end side
34. cylindrical recess
35. cylindrical recess
36. carrier
37. cavity
38. cavity
39. compression spring
40. compression spring
41. flange
42. printed circuit card
43. chip
44. recess
45. steel washer
46. signaling circuit